## DESCRIPTION OF IMMATURE STAGES OF NOCTUISEIUS TREATI PRASAD

(ACARINA: PHYTOSEIIDAE)

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ABSTRACT—The immature stages of *Noctuiseius treati* Prasad are described for the first time. The specimens were collected on Oahu Island, Hawaii from the moth, *Achaea janata*.

Noctuiseius treati Prasad is known from the moth, Achaea janata (L.), collected in Hawaii and Easter Island. The adult and immature stages are found in external parts of both ears, between the thorax and the abdomen, under the tegulae, and around the wing bases (Prasad, 1968).

With the courtesy of Mr. William J. Voss, B. P. Bishop Museum, Honolulu, Hawaii, the immature and adult stages of N. treati were received for study that contained all stages of this moth ear mite. The present descriptions of the immature stages of this mite are based on this material and the material collected previously by the author. The help of Mr. W. J. Voss in supplying the material is highly appreciated.

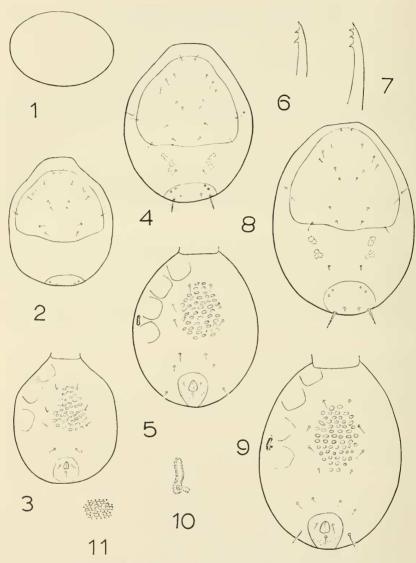
 $Egg\colon$  Oval (fig. 1), smooth, white, with transparent cuticle; 285–289  $\mu$  long and 208–210  $\mu$  wide (2 specimens).

Larva: Idiosoma 242–327  $\mu$  long and 204–289  $\mu$  wide at the widest point (4 specimens). Nine pairs of very small setae (j<sub>1</sub> to j<sub>5</sub>, z<sub>1</sub>, z<sub>2</sub>, s<sub>2</sub>, s<sub>5</sub>) on lightly sclerotized podonotal shield in the podonotal region (fig. 2), opisthonotal region with a very lightly sclerotized pygidial shield which bears 2 pairs of pores.

Ventrally 3 pairs of sternal setae present between the intercoxal region and fourth pair of setae  $(V_2)$  located anterior to the anal shield in the opisthonotal region. Anal shield with 3 setae near the anus, anus in ventral position. Many small, oval to round, lightly sclerotized platelet like structures between the sternal setae in the intercoxal region (fig. 3). Parallel striations on dorsal and ventral membranous integument with dotlike spots interspersed on them. Tritosternum absent. Peritremes absent. Tectum with rounded anterior margin. Movable digit of chelicera with 2 teeth (fig. 6). Number of setae from coxa to tibia on legs as follows: I. 2,4,10,8,8; II. 2,4,7,6,7; III. 2,4,5,6,7.

Protonymph: Idiosoma 370–412  $\mu$  long and 269–290  $\mu$  wide at the widest point (4 specimens). Ten pairs of small setae ( $s_7$  is added here) on lightly sclerotized podonotal shield and 1 pair of sublateral setae ( $r_5$ ) on the integument lateral to this shield in the podonotal region (fig. 4). Two pairs of pores and 2 pairs of setae, the most posterior pair of setae ( $z_5$ ) being serrated and longest of all dorsal setae, on the pygidial shield. One pair of setae ( $J_2$ ) on integument between the podonotal shield and pygidial shield.

Ventrally 3 pairs of sternal setae between the intercoxal region and 2 pairs of setae  $(V_1,\,V_2)$  anterior to the anal shield (fig. 5). A pair of post-ventral setae



Figs. 1–11, Noctuiseius treati Prasad: 1, egg; 2, dorsum of larva; 3, venter of larva; 4, dorsum of protonymph; 5, venter of protonymph; 6, movable chela of larva; 7, movable chela of protonymph; 8, dorsum of deutonymph; 9, venter of deutonymph; 10, peritreme of deutonymph; 11, a portion of dorsal membranous integument.

( $V_5$ ) present lateral to the anal shield. Anal shield with 3 setae near anus, anus in ventral position. Many small, oval to round, sclerotized platelet like structures between the sternal setae. Tritosternum absent. Peritremes very small,  $21-24~\mu$  long, present between coxae III and IV. Parallel striations on dorsal and ventral membranous integument with dotlike spots more prominent than in larvae (fig. 11). Tectum rounded anteriorly. Movable digit of chelicera with 3 teeth (fig. 7). Number of setae on legs from coxa to tibia as follows: I. 2,4,10,8,8; II. 2,4,7,6,7; III. 2,4,5,6,7; IV. 1,4,4,6,7.

Deutonymph: Idiosoma 421–559  $\mu$  long and 308–389  $\mu$  wide at the widest point (5 specimens). Ten pairs of small setae on sclerotized podonotal shield and I pair of sublateral setae (r<sub>5</sub>) on the integument lateral to the shield in the podonotal region as in protonymph (fig. 8). Two pairs of pores and 2 pairs of setae, Z<sub>5</sub> being serrated and longest of all dorsal setae, on the pygidial shield. Setae J<sub>2</sub> on integument between the podonotal shield and pygidial shield.

Three pair of sternal setae ventrally between the intercoxal region and 3 pairs of setae (genital,  $V_1$ ,  $V_2$ ) anterior to the anal shield (fig. 9). Setae  $V_5$  present lateral to the anal shield. Anal shield with 3 setae near anus, anus in ventral position. Tritosternum absent. Many small, oval to round, sclerotized platelet like structures between the sternal setae. Peritremes 26–31  $\mu$  long, present between coxae III and IV. Parallel striations on dorsal and ventral membranous integument with dotlike spots more prominent than in protonymph. Tectum rounded anteriorly. Movable digit of chelicera with 3 teeth as in protonymph. Number of setae on legs from coxa to tibia as follows: I. 2,4,11,8,8; II. 2,4,8,6,7; III. 2,4,5,6,7; IV. 1,4,4,6,7.

## REFERENCE

Prasad, V. 1968. Noctuiseius treati, a new genus and species of moth mite from Hawaii and Easter Island. Ann. Ent. Soc. Amer. 61(2):411–413.

## THE GENUS CRATEROCERCUS ROHWER

(HYMENOPTERA: TENTHREDINIDAE)

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ABSTRACT—A key and descriptions are given for five species of *Craterocercus* Rohwer. One new species, *C.* furcatus from Conn., N.J., and Ill., is described. This genus is found only in North America where two species occur in the West and three in the East. Species of this genus are associated with *Quercus*.

Rohwer (1918) revised *Craterocercus* and included six species, some of which were based on characters now found to be variable. Ross (1951) listed nine species in this genus. In the present paper, five species are recognized, one of them described as new. *Cratero-*

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